

AMENDMENTS TO THE CLAIMS

CLAIM 1 (CURRENTLY AMENDED): A bicycle display apparatus that displays cumulative information produced from a bicycle-related running condition, wherein the apparatus comprises:

a computing component that calculates the cumulative information, wherein the computing component is structured for attachment to the bicycle, and wherein the computing component includes an information output component for outputting the calculated cumulative information;

a separate display component housed within a case member and including an information input component that receives the cumulative information calculated by the computing component, wherein the display component displays the cumulative information calculated by the computing component; ~~and~~

wherein the computing component is disposed outside of the case member and is structured to be mounted to the bicycle independently of the display component; and

wherein the display component is structured to be detachably attached to the bicycle independently of the computing component so that the computing component may remain attached to the bicycle after the display component is removed.

CLAIM 2 (PREVIOUSLY PRESENTED): The apparatus according to claim 1 wherein the computing component comprises a cumulative information memory disposed outside of the case member for periodically storing the cumulative information calculated by the computing component.

CLAIM 3 (CANCELED).

CLAIM 4 (PREVIOUSLY PRESENTED): The apparatus according to claim 1 wherein power is communicated from the computing component to the display component through the information output component and the information input component.

CLAIM 5 (ORIGINAL): The apparatus according to claim 4 wherein the power and the information calculated by the computing component are communicated from the computing component to the display component through a single communication line.

CLAIM 6 (ORIGINAL): The apparatus according to claim 5 wherein the power and the information calculated by the computing component are communicated from the computing component to the display component in one way only through the communication line.

CLAIM 7 (ORIGINAL): The apparatus according to claim 1 wherein the computing component uses rotation information from a rotating member on the bicycle to calculate the cumulative information.

CLAIM 8 (ORIGINAL): The apparatus according to claim 7 wherein the rotation information comprises rotation of a bicycle wheel.

CLAIM 9 (ORIGINAL): The apparatus according to claim 8 wherein the rotation information comprises signals from an alternating current generator that rotates with the bicycle wheel.

CLAIM 10 (ORIGINAL): The apparatus according to claim 7 wherein the cumulative information comprises a total distance traveled by the bicycle.

CLAIM 11 (ORIGINAL): The apparatus according to claim 1 wherein the display component comprises a start input component for initiating computation of additional cumulative information.

CLAIM 12 (PREVIOUSLY PRESENTED): The apparatus according to claim 11 wherein the display component further comprises a cumulative information memory housed within the case member for storing the cumulative information communicated from the computing component.

CLAIM 13 (ORIGINAL): The apparatus according to claim 12 wherein the display component stores the cumulative information communicated from the computing component in the cumulative information memory as reference cumulative information in response to operation of the start input component.

CLAIM 14 (ORIGINAL): The apparatus according to claim 13 wherein the display component calculates additional cumulative information using the reference cumulative information and subsequent cumulative information communicated from the computing component.

CLAIM 15 (ORIGINAL): The apparatus according to claim 14 wherein the display component is structured to display the additional cumulative information.

CLAIM 16 (ORIGINAL): The apparatus according to claim 15 wherein the display component is structured to display the cumulative information communicated from the computing component.

CLAIM 17 (ORIGINAL): The apparatus according to claim 16 wherein display component further comprises a display switching component for alternately displaying the cumulative information communicated from the computing component and the additional cumulative information.

CLAIM 18 (CURRENTLY AMENDED): A bicycle display apparatus comprising:
a display component structured to be attached to a bicycle;
a receiver for receiving cumulative information ~~produced~~ calculated by a computing component from a bicycle-related running condition;
a reference information memory for storing first reference information;
a start input component for initiating computation of first additional cumulative information;
wherein the display component calculates the first additional cumulative information using the first reference information and subsequent cumulative information communicated from the computing component to the display component; and
wherein the display component is structured to display the first additional cumulative information.

CLAIM 19 (ORIGINAL): The apparatus according to claim 18 further comprising a case member structured to be detachably attached to a bicycle mounting bracket and having a housing space adapted to house at least the display component.

CLAIM 20 (ORIGINAL): The apparatus according to claim 18 wherein the first reference information comprises the cumulative information.

CLAIM 21 (ORIGINAL): The apparatus according to claim 20 wherein the first additional cumulative information is calculated by performing a subtraction with the subsequent cumulative information and the first reference information.

CLAIM 22 (ORIGINAL): The apparatus according to claim 21 wherein the cumulative information comprises total distance traveled by the bicycle, and wherein the first additional cumulative information comprises travel distance.

CLAIM 23 (ORIGINAL): The apparatus according to claim 22 wherein the display component is structured to display the total distance traveled by the bicycle and the travel distance.

CLAIM 24 (ORIGINAL): The display apparatus according to claim 18 further comprising a reference information input component for inputting second reference information.

CLAIM 25 (ORIGINAL): The display apparatus according to claim 24 wherein the display component calculates second additional cumulative information from the first additional cumulative information and the second reference information.

CLAIM 26 (ORIGINAL): The apparatus according to claim 25 wherein the second additional cumulative information is calculated by performing a subtraction with the first additional cumulative information and the second reference information.

CLAIM 27 (ORIGINAL): The apparatus according to claim 26 wherein the cumulative information comprises total distance traveled by the bicycle, wherein the first additional cumulative information comprises travel distance, wherein the second reference information comprises a target travel distance, and wherein the second additional cumulative information comprises remaining travel distance.

CLAIM 28 (ORIGINAL): The apparatus according to claim 27 wherein the display component is structured to display the total distance traveled by the bicycle, the travel distance, and the remaining travel distance.

CLAIM 29 (PREVIOUSLY PRESENTED): The apparatus according to claim 1 further comprising a second computing component that calculates and displays information on the display component.

CLAIM 30 (PREVIOUSLY PRESENTED): The apparatus according to claim 29 wherein the second computing component is disposed within the case member.

CLAIM 31 (PREVIOUSLY PRESENTED): The apparatus according to claim 29 wherein the second computing component receives data from the computing component through the information input component and calculates the information displayed on the display component from the data received from the computing component through the information input component.

CLAIM 32: (PREVIOUSLY PRESENTED): The apparatus according to claim 29 wherein the information input component is physically detachable from the information output component.

CLAIM 33: (PREVIOUSLY PRESENTED): The apparatus according to claim 1 wherein the information input component is physically detachable from the information output component.

CLAIM 34 (PREVIOUSLY PRESENTED): The apparatus according to claim 33 wherein power is communicated from the computing component to the display component through the information output component and the information input component.

CLAIM 35 (PREVIOUSLY PRESENTED): The apparatus according to claim 1 wherein the case member is mounted to a bracket that is structured to be mounted to a bicycle handlebar.

CLAIM 36 (PREVIOUSLY PRESENTED): The apparatus according to claim 35 wherein the case member is structured to be detachable from the bracket so that the information output component is physically detachable from the information input component.

CLAIM 37 (PREVIOUSLY PRESENTED): The apparatus according to claim 1 wherein the computing component is structured for attachment to the bicycle spaced apart from the case member.

CLAIM 38 (NEW): The apparatus according to claim 1 wherein the computing component comprises a cumulative information memory disposed outside of the case member for periodically storing the cumulative information calculated by the computing component, and further comprising a second computing component that calculates and displays information on the display component, wherein the second computing component is disposed within the case member.

CLAIM 39 (NEW): The apparatus according to claim 38 wherein the cumulative information comprises total distance traveled by the bicycle.